**Project Design Phase-I**

**Proposed Solution Template**

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| Date | 13 May 2023 |
| Team ID | NM2023TMID14694 |
| Project Name | Advanced breast cancer prediction with deep learning |

**Proposed Solution Template:**

Project team shall fill the following information in proposed solution template.

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| **S.No.** | **Parameter** | **Description** |
|  | Problem Statement (Problem to be solved) | Metastatic breast cancer is the most advanced stage of breast cancer. Breast cancer develops when abnormal cells in the breast start to divide uncontrollably. A tumor is a mass or collection of these abnormal cells. Metastasis refers to cancer cells that have spread to a new area of the body |
|  | Idea / Solution description | There are different types of hormonal treatments for breast cancer: Tamoxifen and toremifene (Fareston) block estrogen from stimulating cancer cell growth. Doctors call these drugs "SERMS," which stands for selective estrogen receptor modulators |
|  | Novelty / Uniqueness | Inflammatory breast cancer is a rare and very aggressive disease in which cancer cells block lymph vessels in the skin of the breast. This type of breast cancer is called “inflammatory” because the breast often looks swollen and red, or inflamed |
|  | Social Impact / Customer Satisfaction | A sense of isolation is common after cancer. You might feel like others can't truly understand. Friends may have retreated. You might find emotional support in counseling, a support group or faith community |
|  | Business Model (Revenue Model) | Breast cancer has the highest treatment cost of any cancer, accounting for 14% of all cancer treatment costs. The cost for medical services was $26.2 billion and $3.5 billion for prescription drugs |
|  | Scalability of the Solution | There are newer treatment options called targeted treatments. These block specific proteins that control how cancer cells grow, divide, and spread. Targeted treatments for HER2-positive cancer have improved survival over the last decade. The most recent type of cancer treatment is called immunotherapy |